

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/011227

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 F15D1/06 F15D1/12

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F15D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 11 082860 A (HIRATA JUNICHI) 26 March 1999 (1999-03-26)	1,4, 6-11,34, 36,37
A	paragraphs '0001! - '0004!, '0010!, '0012!, '0041! - '0045!, '0070!, '0091!; figures 2,8,14 -& PATENT ABSTRACTS OF JAPAN vol. 1999, no. 08, 30 June 1999 (1999-06-30) -& JP 11 082860 A 26 March 1999 (1999-03-26)	12,13, 17, 21-30,40
A	abstract ----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
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Date of the actual completion of the international search

23 December 2004

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03/01/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 664 928 A (ROBERTS ERNEST ROTH) 23 May 1972 (1972-05-23)	1-4, 34, 36
Y	column 2, lines 47-66	5-11, 37, 40
A	column 3, lines 59-65	12, 13, 17, 18, 25-30
	column 4, lines 51-60; figures 2, 6B	
X	EP 0 679 812 A (OLEINIKOV VALERY GRIGORIEVICH ; GACHECHILADZE IVAN ALEXANDROVI (RU); K) 2 November 1995 (1995-11-02)	1, 2, 4, 38
Y	cited in the application page 4, line 37 - page 6, line 11; figures 1, 2	5-11, 14-32, 36, 37, 39, 40
X	WO 97/04280 A (VIDA NIKOLAUS ; KIKNADZE GENNADY IRAKLEVICH (RU); OLEINIKOV VALERY GRI) 6 February 1997 (1997-02-06)	1, 2, 4, 6-11, 36
A	cited in the application page 1, paragraph 1	12, 13, 21-25, 28-30
	page 5, lines 18-22 page 15, lines 1-14	
X	US 5 080 367 A (LYNCH FRANCIS DES ET AL) 14 January 1992 (1992-01-14)	12, 13, 35
Y	column 5, lines 53-61	14-32, 36, 37, 39, 40
	column 7, lines 3-12 column 8, lines 21-26 column 9, lines 29, 30; figures 2, 4, 5, 8, 9, 24	
P, X	WO 2004/048871 A (VIDA NIKOLAUS) 10 June 2004 (2004-06-10)	1-13, 17, 18, 21-30, 36, 37, 39, 40
	page 1, lines 6-15 page 6, lines 17-26 page 8, lines 17-33 page 9, lines 14-17; figures 3-5	
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	DE 198 40 303 A (BRANDHORST INGO) 9 March 2000 (2000-03-09) abstract  column 2, lines 12-22; claims 1,2; figures 1,2 -----	33  12,13, 17, 21-24, 31,32

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Information on patent family members

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